NEWS AND VIEWS OF THE FARMER

GROWING SUGAR BEETS

BEETS WEIGHING TWO POUNDS ARE CONSIDERED THE BEST PAYING SIZE FOR THE FARMER TO RAISE.

By R. H. McDowell.

As a general rule, any soil that will produce a good crop of wheat, oats or potatoes will produce good sugar beets. A heavy clay soil is one of the most unsatisfactory for the culture of beets.

It will pay well in growing beets—any farm crop in fact—to have the soil at seeding time well pulverized; in such a soil the seed germinates more evenly and the young plants are pushed more rapidly to maturity. Taking it for granted that the land was plowed in the fall or winter, a seed bed from 14 to 16 inches in depth should be prepared. The soil should be well loosened, as this permits the beet to grow down without obstruction for thirteen inches or more; when the beet at seven to nine inches finds a compact soil the tendency is to fork

Position of Beet in the soil.

and grow large side roots; the latter will carry sand into the slicer, and the rough beet has a less per cent of sugar than one of symmetrical shape.

The model beet called for by experts is usually described as being symmetrical, about thirteen inches in length, practically free from side roots and weighing from one to two pounds. An Eastern dealer said, with reference to the size of beets: "We would not refuse a three-pound beet, but two pounds is the best paying size for the farmer to raise; this weight can be obtained by proper cultivation."

In all cases be sure to use seed enough. This varies greatly by different authorities, some giving fifteen pounds per acre as the right quantity, others twelve pounds, and still others claim that eight pounds per acre of good seed is sufficient.

It is always desirable in a field of sugar beets to have a uniform stand; if every row upon a field of 500 acres has a solid stand of plants, the farmer can thin to definite and uniform spaces. With pedigree seed—i. e., seed grown by reputable persons of long experience—the vitality tested in advance, the ground and weather in prime condition, the question of seeding can be conducted on a closer basis than where some of these factors are not well settled. With a few years of experience in growing beets farmers cannot only closely regulate the amount of seed per acre, but every detail in connection with the growing, from the first furrow till the crop is delivered at the factory. Dr. Wiley said, several years ago, that a model acre should contain 40,000 sugar beets weighing one pound each.

Start the cultivator as soon as the rows show across the field—sooner than this should the weeds show in advance of the beets. The best time to kill weeds is before they have fairly started; the work can be done at this stage of growth for the least expense, and also keeps the soil loose and fine to hasten the growth of the crop early in the season.

During the growing season beets should be cultivated once in seven to ten days, leaving the soil practically level with the last cultivation. When the leaves cover the ground cultivation should stop. When the beets show the fourth leaf they should be thinned to one plant in a place and about eight inches apart in the row; selecting, so far as possible, the best plants. The rows should be as close together as will permit of horse cultivation; some of the experts say that the rows should be eighteen inches apart.

Some farmers may doubt the necessity of thinning to one plant in a place. Don't make any mistake at the outset; the sugar beet is a trifle particular on some points, and the manufacturers are sometimes more exacting than the beet. Right here has been one of the main collision points between manufacturers and farmers—sugar content of the beet and the method of paying for the same.

It is important not only that a sugar beet should be of a proper size and shape, but also that it be grown in such a manner as to secure the protection of the soil for all its parts except the neck and foliage. The proper position for a beet to occupy in the soil at the end of growth is one which necessitates careful management. This position can only be secured for the beet by growing it in a soil sufficiently pervious to permit of the penetration of the tap root to a great depth. It is for this reason that subsoiling in the preparation of a field for the growth of sugar beets is of such great importance. If the beet,

"Vilmorin Improved." This beet is the result of thirty-five years of methodic and persevering selection.

in its growth, should meet a practically impervious soil at the depth of eight or ten inches, the tap root will be deflected from its natural course, lateral roots will develop, the beet will become disfigured and distorted in shape, and the upper portion of it will be pushed out of the ground. Experience has shown that the content of sugar in those portions of a beet which are pushed above the soil is very greatly diminished.

SHOULD FARMERS KEEP STANDARD-BRED POULTRY

By Oscar Erf.

Pure-bred animals are those that produce their form, habits or other distinctive qualities with uniformity. In order that we may get offsprings like the parent and like each other we must have animals whose ancestors for many generations back have been of one type. The more generations of such uniformity, the more certain it will be that the young will possess similar quality.

The wild animals of any one kind or species in one locality have been of similar type for many generations and may be considered as pure-bred. By the law of natural selection, individuals not suited to live in that particular locality have been weeded out.

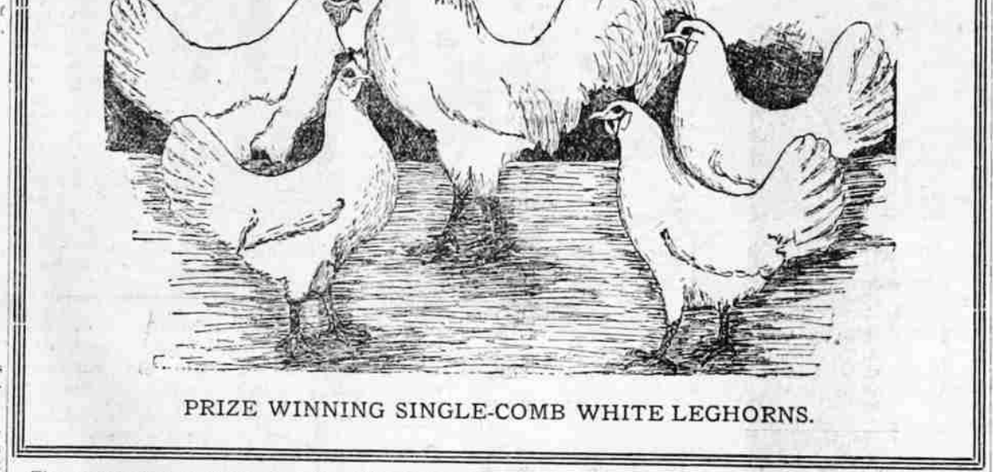
When animals are domesticated, and moved to other climates, and are fed different foods, only such individuals will live and produce young as are suited to the new conditions. But another factor changes domestic animals more rapidly. Men breed only such specimens as please their fancy; and this artificial selection replaces natural selection. During the many centuries of domestication the chickens of different parts of the world have developed into different types. When these radically different types are brought together and crossed we have produced young that are very different from the parents and from each other. Nor can these young be depended upon to reproduce offspring like themselves. They are said to be cross-bred, or, if the mixing be for several generations, they are known as mongrels. By selecting from cross-bred or mongrel stock such chickens as are desired, and breeding these together for many generations, new breeds may be established.

One strain of chickens may be selected for uniform color of feathers, another for a certain size and shape, another for laying large eggs of a certain color, and yet another strain for being producers of many eggs. Each of these strains might be well-bred in these particular traits, but would be mongrels when the other considerations were taken into account. Breeders of pure-bred stock, in making their selection of breeding animals, try to consider the desirable qualities in due order of their relative importance. Thus, with trotting horses speed is given prominence above everything else, while in the case of swine or beef cattle attention has been given to the qualities of growth and fattening that make for the profitable production of meat. Only such uniformity of color and minor points are demanded as will serve to distinguish the breed and give uniformity of appearance. The standards adopted by breeders of this class of animals give relatively small consideration to fancy points, whereas poultry breeders consider about one-half of the value of their birds to depend on color of feathers alone, while the judgment of shape is based upon the outline produced by the feathers and not on the true body shape. The standard bred poultry fanciers have not been mainly concerned in producing breeds of chickens for the use of the farmer or practical grower, as have been the breeders of cattle and swine. Men who pursue animal breeding for pleasure alone do not choose large, slow-breeding animals, such as cattle; neither do animals wholly worthless from other standpoints receive much attention from breeders. But the hen, variable in form and color, inexpensive to secure, readily reared and capable of producing in brief time large numbers of offspring, and yet withal capable of paying her way in food products, has rendered possible the development of the fancy or standard-bred chicken business into the most universal and important fancy or artistic-breeding business in the world.

From the attention that has been given to the breeding of poultry for the show room, many people wrongly infer that standard-bred poultry is no better than mongrel stock for commercial purposes.

The mongrel chicken is a production of chance. Its ancestry represents everything available in the barn-yards of the neighborhood, and its offspring will be equally varied. In the pure breeds there has been a rigid selection practiced that gives uniform appearance.

The size and shape requirements of the standard, although not based on the market demands, comes much nearer producing an ideal carcass than does chance breeding. Ability to mature for the fall and winter shows is a decidedly practical quality that the fancier breeds into his chickens. Moreover, poultry-breeders, while still keeping standard points in mind, have also made improvements in the laying and meat-producing qualities of their chickens. Considering these facts, it is an erroneous idea to think that mongrel chickens offer any advantage over pure-bred stock.



PRIZE WINNING SINGLE-COMB WHITE LEGHORNS.

The reason why so many of our beautiful plants and vines are destroyed by bugs is because we are too lazy or unqualified to fight them all the time.

Pigs got the thumps? Shut off the corn and get them on the grass as soon as possible.

The expense of caring for a mule is less than for a horse. He eats less, requires no blanketing, no stall and is more easily kept clean.

We must remember that the bugs, mildew and blight work while we sleep, but if we keep after them while we are awake they cannot last long.

When you see the little ghost-like winged creatures raising like tiny clouds from your rose bushes, be sure it is the aphis. Get after them with the spray.

Horses that are used exclusively on the farm and do no road work should go unshod.

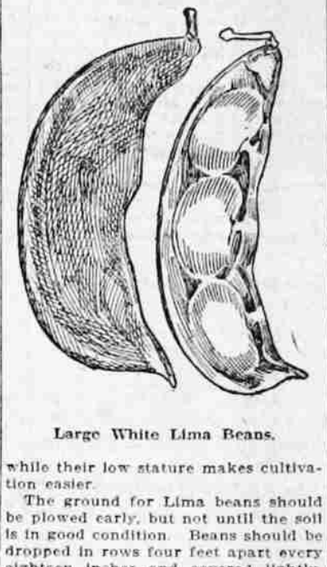
THE LIMA-BEAN CROP

EASY TO GROW AND EASY TO CULTIVATE AND BRING FAIR PROFITS IF WELL MARKETED.

By C. M. Clinton.

To make money with Lima beans, one should grow them as a specialty and sell on the large market or direct to consumers, if possible. If this is not desirable, it is best to make an arrangement with one commission house which makes a specialty of this class of vegetables and ship to him daily as long as the season lasts.

The dwarf Lima beans are sports of the climbing variety. There are three types of each, the most popular of the climbing beans being the true Limas, large, flat and slender, with broad pods. The dwarf Limas are comparatively new and possess all the desirable table qualities of the pole Limas,



Large White Lima Beans.

while their low stature makes cultivation easier.

The ground for Lima beans should be plowed early, but not until the soil is in good condition. Beans should be dropped in rows four feet apart every eighteen inches and covered lightly. Deep planting is fatal. If the weather is wet the least possible soil, say a quarter of an inch, is enough to draw over the bean. It requires about one-half bushel of seed per acre.

The Lima bean does not need fertilizers containing nitrogen, because it gets all it needs from the air, but should have plenty of phosphorus. Fertilizers should be put on after the plants are up and growing nicely.

The plants should be well hoed before the vines commence to run, and as soon as the ground dries off after rain, they should be lightly hoed and the surface kept loose.

It is important to study the demand of the market, because some consumers require the plump potato-bean while others will have nothing but the large, flat variety.

When grown on a large scale, the beans are sold in bags, and bring from $1.50 to $2.00 per bag, the low price being at the close of the season. When shelled and packed into neat boxes, they bring much better prices, of course, and if cheap labor can be had, this is the proper way to dispose of them.

The Lima bean is a favorite vegetable everywhere and is grown in all sections of the country. The experience, or rather, opinions, of growers in various parts of the United States as to the merits of pole or bush beans will be of interest.

"In this latitude Lima beans should not be planted before May 20th. They do better on land that has been worked a year or two than on fresh sward land. Manure well and mark out rows four feet apart and put hen manure in the furrow, covering it three or four inches.—C. H. V., Conn.

"I prefer pole beans for home use, as they are more prolific and profitable, but grown on a large scale the poles are too hard to get and are too expensive."—G. W. K., Ky.

"Where poles are easily gotten, pole Limas are the most profitable. They have much larger vines and bear better than the dwarf."—M. A., S. C.

"A pole Lima will outbear a bush bean and will not rot so badly in wet weather. The bush Lima is early, and that means a great deal in the market, and the saving of poles makes them cheaper to grow."—L. B., Texas.

"But few Limas are grown here on account of the short season. Bush varieties are therefore best, as they mature earlier."—A. A. R., Minn.

Dwarf Lima Beans, Rather Late.

"We have planted bush Lima beans for the past three seasons. This year shall plant no other kind. Planted alongside pole Limas they have borne right along during the dry season, while the pole Limas did very little good. The beans are smaller, but the quality fine."—I. E. M., Ind.

"The dwarf varieties have not proved as reliable as the pole kinds. In wet seasons the pods are too near the ground and they mildew. In very dry seasons they do not do as well as the pole varieties."—G. G., Pa.

"I have ceased to grow pole Limas, as the bush beans have proved more profitable with me."—J. J. K., Ohio.

"Limas grow to perfection here. Push them in the soil, eye down, in early May. Can plant about four times as many bush beans on same area as of the pole sorts; but with same treatment a pole will make eight times as many, and thus give twice the crop that the bush bean does. The bush gets in market first and commands a better price, but the pods are scarce."—J. J., Ky.

"With me the pole beans have done best, but my neighbor has best success with bush Limas."—M. A. P., Mich.

"Bush beans have been a failure with me, while pole Limas have been just the reverse. I have grown them at the rate of over sixty bushels to the acre. I plant from May 20th to June 10th, in drills three feet apart and six inches in the drill."—A. R. I., Neb.

MOLES IN THE GARDEN

The character of the mole's teeth show that he belongs to the carnivorous class of animals, and though at times he may take a little vegetable food, his regular diet is undoubtedly the larvae of insects and earth-worms. Place before one of them a cut-worm and see how fiercely he will attack it.

It is a serious question whether in our fields he does not do more good than harm, but in the garden he is an unmitigated pest, not so much for what he eats himself, but for the general upsetting he makes, and the access he gives to the field mice that follow in his burrows and eat what he passes by.

Frequently we find a mole run, passing down row after row of sweet potato ridges, and potatoes devoured in the path, but the marks on the potatoes show that they were not eaten by moles but by the mice which take advantage of the paths the mole has made. The mole, nevertheless, is responsible for the damage.

Traps sometimes catch a few, but we have seldom had much continued success with the ordinary traps. The best mole trap is made of an old tomato can. Sink it to the level of the bottom of the row, place a chip over the opening and then cover the earth back. The mole will push the obstruction away and then fall into the tin can and cannot get out, provided the can is opened only by the size of the cap.

Poison I believe to be the most effectual. Place the poison on pieces of fresh raw beef and place in the runs. We have always been inclined to befriend the mole, but in our climate they work all winter and tear our lawns up as badly as a bunch of rooting pigs, so friends or not, we must hunt them out.

Dogs on the lawns are sometimes as bad as the moles, but they can be used in winter to help capture the moles. In vegetable gardens and lawn make general warfare with poison and traps. Try the tomato can. It does not take long to set a dozen or so. Let the boys have the cans and pay them for every mole caught.—W. F. Massey, N. C.

KEEPING THE BOY ON THE FARM

Boys on the farm, as well as elsewhere are simply men in the process of growth and development. No man would stay long on a farm without a pecuniary interest in it. Why then expect boys to be more unselfish and disinterested than men?

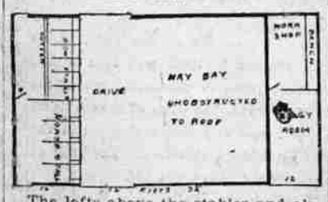
Give the boy, as soon as he is old enough to take care of it, a pig, a calf or some chickens. Give him a piece of ground to work and experiment on. Do not be too bossing. Advise him how to manage, and if he still wants his own way let him try it. Do not be forever "nagging" and finding fault with him. Remember that his faults, as well as his virtues, are inherited. If he fails, after refusing your advice, he will have a greater respect for your opinion in the future.

Teach him by example, as well as precept, that labor is honorable and laziness disgraceful. Give him a good education, if possible, in an agricultural college. Have plenty of good books and papers, and set the example by reading them yourself. Don't be always grumbling about the hard times farmers have. Make your farm and home beautiful and attractive, and love it with all your heart, and stay there yourself if you expect your boy to do it.—H. M. McLaughlin, Iowa.

Dairy cows will fall off in milk unless they are fed grain, even if the pasture is pretty good.

FLOOR PLAN OF A BARN.

The picture presents the floor plan of a barn suitable for about 160-acre farms. It accommodates four horses in roomy stalls and six cows—possibly a little crowded, stalls being three feet four inches wide.



The lofts above the stables and also the decks are extended over the driveway. The hay bay is 32x40 feet, but unobstructed from floor to roof. The buggy room and work shop is a cheaply constructed shed or lean to 10 feet high, and the roof may be either gable or curb, with little difference in cost—just extra sheeting and roofing, as no extra timbers are required.—J. C. Shawver.

A grape grower, near Fresno, California, who has kept an accurate book account of his vineyard for 10 years, estimates that it costs 2½ cents per pound to grow raisins for the market.

Evergreens ought to be planted as early as possible.

GOOD ROADS INSTRUCTION.

About April 1st a unique train will depart from Brownsville, Texas, for a four months' trip over the Frisco System. This will be the Good Roads Special, to be operated by the Frisco Railway Company, the Office of Public Roads of the U. S. Department of Agriculture, and the American Association for Highway Improvement. It will be a train of four cars, specially equipped, and will carry lecturers and an unusual exhibit. This exhibit consists of carefully prepared models of all types of road construction, from sand-clay and gravel to bituminous macadam, and of reinforced concrete bridges and culverts, completed and under construction. It also contains miniature models of road machinery and a rock quarry, which are operated by electricity. Each model in the car is properly labeled, so that the object-lesson in itself affords a considerable road education.

This train will cover about 15,000 miles in the states of Texas, Louisiana, Missouri, Kansas, Arkansas, Oklahoma, Mississippi and Alabama. A complete schedule of stops has been prepared, which provides opportunity for more than three hundred lectures upon good roads topics. These lectures will be given upon those road subjects which are most intimately connected with the locality visited.

Mr. H. C. Wells, Superintendent of Road Construction, assisted by Mr. J. W. Janssen, both of the U. S. Office of Public Roads, will accompany the train to give good roads lectures. Their addresses will be illustrated by over 100 colored lantern slides. The representative of the American Association for Highway Improvement will effect good roads organizations where there is a desire to have them. These men are expert highway engineers and are prepared and willing to answer all questions which time permits at each stop.

FOR THE FLOWER LOVER.

Sweet pea vines must have good support. Brush branches suits them better than anything else, but these are not always easy to get. A good substitute for brush is very coarse meshed wire netting.

As soon as the plants begin to bloom begin to cut from them. The more blossoms you cut off the more you will have. If care is taken to remove the blossoms as soon as they begin to fade, the plants will continue to bloom until frost comes; but if seed is allowed to ripen, you will have but few flowers during the latter part of the season.

The New York legislature has been asked to pass a law to compel the sale of eggs by weight instead of by number and providing a fine of $5 for each violation.

BEE-KEEPING.

As an adjunct to farming I know of nothing, when properly cared for, that pays so well, considering the time spent and the money invested, as bees.

Last year, two colonies produced eighty pounds per colony of surplus honey, which sold for $20. The bees cost $5, so there is a gain of $15, or 300 per cent. No other stock or crop paid us as well.

A bee-keeper not far from here averaged 112 pounds of honey from his colonies. He sold it for 16 cents a pound. This seems like a very large yield, but with improved methods we expect to do even better. One farmer in this community manages to clear $100 each year from his bees. He keeps from twelve to fifteen colonies, and his farm does not suffer from neglect in the least.

If the men have not time to attend to the bees, the women can look after them. They are generally about the premises and have a better opportunity for watching them.

For gentleness in handling, ability to gather honey and to keep free from moth, I prefer the Italians. Any chaff hive will answer the purpose. It should be chaff lined all through, and for wintering out of doors, a chaff cushion should be placed over the bees to absorb moisture.—Mrs. L. Taylor, Ohio.

WAS AFRAID OF BANKS.

A down-East farmer, owing to little faith in banks, and loss of memory, has lost his fortune of $1,200, which he placed in an earthen jar and buried in a secluded portion of his land. Now he has forgotten the spot and spends all of his time digging about the

farm, hoping it may turn up. The farm is well on the way to weeds and the grounds look like the home of a settlement of prairie dogs.

Kerosene emulsion is easy to make. Cut up half a pound of soap and boil in a gallon of water. Add two gallons of kerosene, while the water is hot, but remove the kettle from the fire before doing so, or you may not live to use the mixture. Churn briskly for five minutes. For spraying dilute this with seven or eight parts of water.

Did you go after the borers in the peach tree roots last fall? Well, you certainly should get busy with the knife and wire now.

POTASH IN MOHAVE DESERT.

Vast deposits of potash are rumored to have been found in California—enough to supply the United States probably for thirty years, so government scientists estimate.

The potash was discovered in Searles' lake, in the Mohave desert, in San Bernardino county, Cal. Field men of the geological survey and the bureau of soils estimate that the deposit may amount to 4,000,000 tons, but the authorities in Washington, from data in their possession, believe more than 10,000,000 tons of potash is available there.

The great value of the find is that the product is in readily available commercial form. Most of the potash known to exist in many places in the United States is not so.

Similar dried up lakes containing valuable deposits, it is believed by government officials, exist in the arid regions and will be discovered.

The government bureaus for some time had sought throughout the country for potash, feeling certain a supply would be found. At present the United States and other nations are almost entirely dependent upon Germany for potash.

If this report is true, it is of great importance to the whole industrial and agricultural world. It will cut the price of fertilizer in half and a big increase in crops will follow its greater use by the farmers of America.

THE DIET OF FARMERS.

Indigestion and rheumatic troubles are common among farmers, though it would seem that their mode of life ought not to induce these troubles. Perhaps a restricted diet is largely responsible for them. A continued diet of salt-pork, a too abundant use of lard, and potatoes as almost the only vegetable, will work havoc with a rugged digestive apparatus and ruin a delicate one.

Asparagus, the most delicate vegetable that grows, is most delicious as a food, and is really a specific for rheumatism. It acts immediately and directly upon the kidneys.

Spinach is rich in iron, and is therefore the best of spring tonics. The writer knows from his own experience that a generous use of it holds off rheumatic troubles through the wet and changeable weather of spring.

Almost every vegetable has some peculiar properties of its own, and even if we do not know what those properties are, if we go the rounds, and eat them all in turn, we enjoy the benefits of them all the same.

Kerosene emulsion will kill plant lice more effectively than helleboro.

IMPROVED DAIRYING

In much of the West cattle raising for beef has long been the principal business, but dairying is comparatively new. There is an extensive market, however, for dairy products, and especially in the newly settled regions it is found that the dairy industry fills such a place in agricultural economy that its development is urgently needed.

In addition, a special enterprise has been undertaken with creamery patrons in some states, the object being to determine whether it will pay creameries to carry on the same sort of work among their own farmer patrons for the sake of getting a better quality of cream as material for making butter. Here also record keeping has been introduced, along with other improved methods, and the effort is made to discover the leaks that reduce profits.

In the older states of the North dairying is already an established and highly developed industry. Cow-testing associations are societies for co-operating in the keeping of herd records by engaging a man who goes from farm to farm periodically, makes observations and keeps records for the herds of all the members of the association. By this means records are secured without the trouble or expense involved when each man keeps them for himself; and in various other ways the co-operation of the farmers is productive of profit. The primary objects are to detect and weed out inferior individual cows, and by the use of pure-bred bulls to perpetuate and intensify the valuable characteristics of the cows that are found to be good ones—thus raising the average quality of the individual cow and the total productiveness of the herd. There are eighty-five cow-testing associations now in twenty states, comprising 45,000 cows.

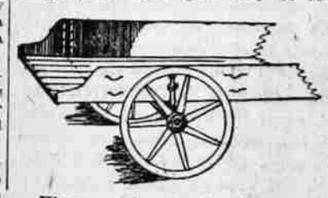
The records of one of these associations show that the profit was doubled after four years' work. For instance, a man with eight cows found, the first month of keeping records, that he was losing 5½ cents per cow, or 44 cents on his herd for that month. After three months' testing he was making a profit of $32 a month on the herd, and at the end of the year his profit has increased to $50 a month. This notable increase was due largely to the sale of five of his poorest cows, and the purchase of as many well-producing ones to take their places. In addition, there were changes made in the method of feeding, which conduced to the results.

EXTENSION BOTTOM FOR WAGON.

For convenience in unloading any produce that can be handled with a scoop-shovel, a wagon box with an extension gives much satisfaction.

The main gate should be the same height as the sides, and the one at the end should be six or seven inches high.

Instead of having to use a scoop-board when starting to unload a load of corn, the main gate may be removed, when the corn will roll into the extension of the body and may be scooped up with ease.



Wagon with extension bottom.

Other uses, such as a place to hold the feed and boxes when out for a day's teaming, or the bucket with which the team may be watered during a warm day, and many other useful things will present themselves, once this kind of wagon-body is used.—J. W. G.

CLARIFYING MILK.

By running milk through the separator and then remixing, a good many germs are removed, but this does not imply that the disease germs are removed. The chief effect of the separation is the purification of the milk from solid filth, and this is some gain. The keeping quality of the milk is not, however, greatly improved by the clarifying. If there were disease germs in the milk before being separated they will most certainly be in the milk after being separated.

ARSENATE OF LEAD.

The above is the leading insecticide for summer use. The formula is as follows:

8 pounds arsenate of lead.
50 gallons water, or bordeaux mixture.

Arsenate of lead is in the form of a thick white paste, which dissolves readily in water. It adheres to the foliage for a long time and does not "burn" the leaves. For codling moth (apple worms) and plum curculio; also for canker worm, tent caterpillar, and all insects which eat the leaves.

Mighty good time to get the accumulated manure out on the fields. Some people say better than winter.